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They Grew Up Around Fossil Fuels. Now, Their Jobs Are in Renewables.

By JOHN SCHWARTZ | Photographs by BRANDON THIBODEAUX | MARCH 26, 2019



CLAWSON, UTAH — Chris Riley comes from a coal town and a coal family, but he founded a company that could hasten coal's decline. Lee Van Horn, whose father worked underground in the mines, spends some days more than 300 feet in the air atop a wind turbine. They, and the other people in this story, represent a shift, not just in power generation but in generations of workers as well.

They come from places where fossil fuels like coal provided lifelong employment for their parents, grandparents and neighbors. They found a different path, but not necessarily out of a deep environmental commitment. In America today there is [more employment](#) in wind and solar power than in mining and burning coal. And a job's a job.

His Great-Grandfather, Grandfather and Father Mined Coal. He Wants to Replace It.



“It’s not ideology. It’s just math.”

— Chris Riley, entrepreneur | Utah

Chris Riley grew up in the tiny mining town of Clawson in Utah’s coal country, population 163, “and half of them named Riley,” he said. He grew up poor, raised by a single mother with help from food stamps and the local church.



The Hunter Plant in Castle Dale, Utah, near Clawson.

Mr. Riley's great-grandfather came to the United States from England to work in the region's mines. Mr. Riley's grandfather, Robert Riley, now 94, also spent his working years in the mines, as did his father, Mike.

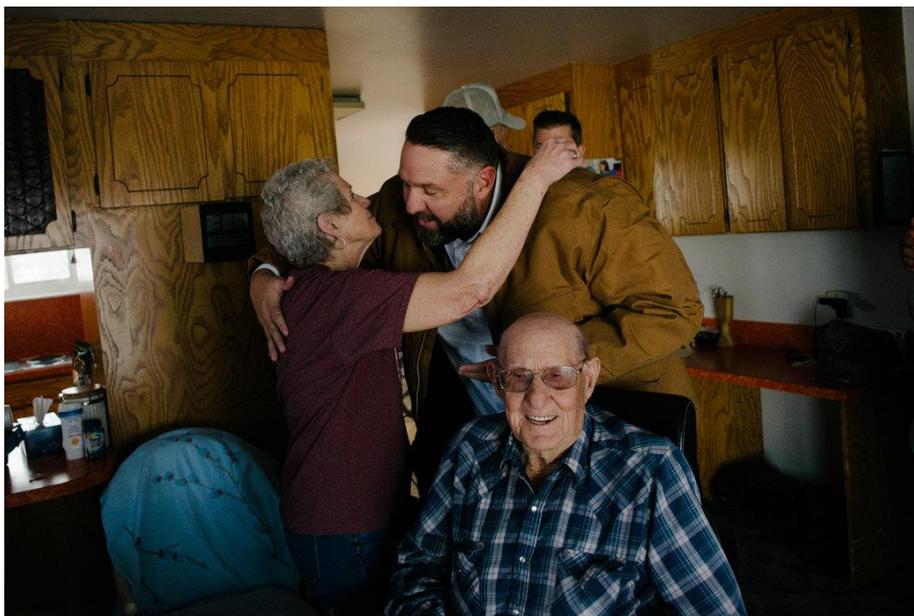


Mining memorabilia in the Riley home.

On the day I met Mr. Riley, he was driving to Clawson from Salt Lake City for a visit. Mr. Riley is the first member of his family to graduate from college, and he did not seek employment in the local mines. "My family pushed me pretty hard to find a way to get out of town," he said.

After serving in the Navy, where he commanded the patrol ship Sirocco, and graduating from Harvard Business School, Mr. Riley and friends founded Guzman Energy. They want to disrupt the energy business by helping communities in the West find alternatives to the relatively expensive power provided by rural electric cooperatives and their coal-burning plants — such as cheaper, renewable energy sources.

His sales pitch, he said, is not about enlisting these towns to fight climate change. "It's not ideology," he said. "It's just math."



Mr. Riley with his aunt Carey Bloomer and grandfather Robert Riley.

As we sat around his grandparents' dinner table, he laid out for his family the implications of his business plan for the first time. He explained that helping his customers would inevitably hurt towns like Clawson. "It's not like you put a wind farm in and it turns a coal plant off," he told them, but "you're making coal plants not needed as much."

They listened intently. Like many Westerners, they say that environmental concerns are overblown and that they don't trust government initiatives like President Barack Obama's Clean Power Plan, designed to curb emissions from coal plants. This, however, was different, said Mr. Riley's uncle Wade, who has moved from Utah to West Virginia and back again because of mine closures. "You're not coming in and saying we want to shut that down because we want to put this in" as part of government meddling, he said. "Eventually it's going to happen, because that's the way nature is."

In Venezuela, His Father Worked in Oil. He Worked on the Paris Climate Deal.



“Pursuing my family background in oil was not the way to go.”

— Luis Davila, solar executive | California

Luis Davila grew up in Punto Fijo, Venezuela, and Curaçao, the son and nephew of oil executives. And he grew up around oil refineries. “We were deep in the oil economy,” he recalled. “Dad’s role was to go around refineries and upgrade them, both in South America and the Caribbean.”



Mr. Davila's father, in blue shirt, at an oil refinery in Barrancabermeja, Colombia. via Luis Davila

Assuming that oil would be his career, he took an internship after his freshman year of college working in a Curaçao refinery, but was unhappy with the conditions for workers. "I breathed in all the gases and learned what it was like for them," he said.

Back at Seton Hall University, he learned about climate change. "It changed my life," he said. "Pursuing my family background in oil was not the way to go." He sought work in foundations that focused on climate action, making his way to the United Nations climate change agency, where he worked to build support internationally for the Paris climate agreement.

After nine years with the agency, he decided it was time to "work to implement the agreement" through concrete measures. And so he came to Sunrun, a major solar company, where he is the company's director of campaigns and advocacy.

He works in San Francisco, where the company is about to move into the old Standard Oil Building.

Her Grandfather Worked in Coal. Her Grandmother Begged Her Not To.

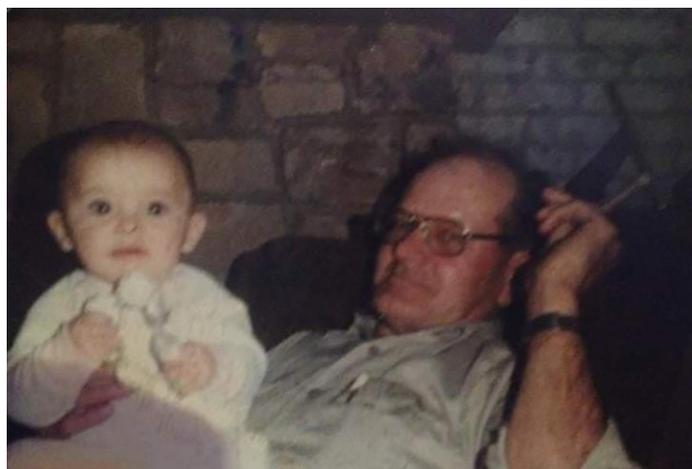


“She told me not to break myself down like my grandfather did.”

— Jess Varney, construction worker | West Virginia

Jess Varney grew up in Mingo County, W.Va., deep in Appalachian coal country, with many family members who worked for mining companies. She came to Coalfield Development, a local job training organization, to learn other trades. She is working on construction crews with the group today, largely on projects that retrofit buildings for energy efficiency and solar power.

She had thought she might work in the mines herself someday, but “my grandmother begged me not to do that,” she said. Her grandmother had raised Ms. Varney, and had seen too much death and disease in her family to want her granddaughter to follow that path. “She told me not to break myself down like my grandfather did.”



Jess Varney and her great-grandfather. via Jess Varney

She said she was not motivated by environmental concerns, but by a desire to provide for her family — her partner, her child and stepchild — in a region where the economy doesn't offer many opportunities.

He Was a Marine in Iraq. His Father Suggested Wind Farms.



“I don't like heights, but I trust my dad a lot.”

— Jake Thompson, wind farm manager | Texas

From the top of wind turbine No. 48 near Stanton, Tex., 300 feet above the ground, you can see lines of wind towers curving into the distance. But closer to the ground, the infrastructure of oil and gas stands out: bobbing pump jacks and drilling rigs. This is the heart of the Permian Basin, the second most productive oil field in the United States.



A wind boom coexists here with the oil boom; Texas now produces more wind power than any other state. Jake Thompson is the manager of this wind farm, owned by Invenergy. A former Marine, he served six years, with deployments that took him to Iraq, Afghanistan and Kuwait. He expected that after he got out, he would work, as his father had, in the oil fields.

But his father, who had been laid off and rehired in several of the industry's cycles, had a different suggestion for his son: wind. Their hometown, Snyder, he told Jake, was "almost completely surrounded by turbines."



"I kind of laughed at him at first," Mr. Thompson said. "I don't like heights." But he found that many of the skills he'd mastered working on helicopters in the Persian Gulf were similar to those in turbines.

He applied, and got hired. The first time his fellow employees had him climb the ladder to the top of a tower, he said, "I was still in pretty good shape" from the military, so "the climb didn't bother me," as it does many first timers.

And then there was that view. "I looked out at the top," he said, "and decided that was going to be my career."

He says he's still afraid of heights.

He Wants to Hold On to Traditions. So He's Studying Renewable Tech.



“When was the last time someone baked crude oil into bread?”

— Levi Kudrna, student | North Dakota

Levi Kudrna was barely into his teens when the North Dakota oil boom started. He grew up in a farming family and loved that life. What oil did to his state, his community, the local way of life, troubled him. He recognizes that the money has been helpful; his school got a library addition from tax proceeds. But he's also seen highways packed with semi trucks hauling frac sand and heavy equipment and leaving choking dust in their wake. He's seen the night sky marred by the glare of flaring gas.

Now, Mr. Kudrna is taking classes in an energy industry training program at Bismarck State College. He said he hoped to find a local job in renewables that would provide a steady income to let him continue farming and ranching as a second job.

“Many local neighbor people lost their focus on farming and ranching, which once was the driving force behind our state wealth, and began working oil field jobs paying so much better than farming ever could,” Mr. Kudrna said. “Many of these people lost part of that neighborly connection they once held.”

Her Grandfather Embodied Mining. She's a Vice President at a Solar Company.



“We look at it as a common thing. We’re all in the energy business.”

— Miranda Barnard, solar marketing | Utah

Miranda Barnard comes from the small coal mining town of Price, the seat of Carbon County, Utah, less than an hour away from Chris Riley’s hometown. Like the Rileys, her family boasts four generations of coal miners. “It’s just kind of the family business,” she said.

Her grandfather, Juan Antonio Valdez, was even in a magazine advertisement about coal mining in the 1970s. Her father was a mine foreman.



**In Sunnyside, Utah,
they've always had too much water.**

You wouldn't guess it from the parched, scrubby desert that's all around.
But at the Kaiser Steel Corporation's Sunnyside Coal Mine, too much water has been a problem ever since 1896, when the original miners began working there.
These million gallons of water must be pumped up every day. Or the mines can't be worked at all.
To do the job, Kaiser Steel turned to some

rugged, handworking ITT pumps, designed by the people of ITT.
These submersible pumps, operating in gray ledes water, pump out the water continuously day and night. Some have been at it 22 years now.
Some of the water is sprayed on the coal being mined, to keep down the coal dust.
Some is used to wash the ore before it's sent off to its destination.

And some of the water is stored in 500,000-gallon tanks that some of Sunnyside's neighbors tap for laundry when their water supply's low.
Around Sunnyside, Utah, they need all the water they can get.
Everywhere but in the mines.
The best ideas are the ideas that help people. ITT



Left image via Miranda Barnard

Today she works as vice president of marketing at Vivint Solar, a company in Lehi, Utah, near Salt Lake City. In her office, she's proudly hung the old ad with her grandfather; her family's ties to the industry are important to her, she said. "I am probably one of the few people who work in solar who went to sleep at night knowing all the hard work that went into being able to turn the lights on and off," she said.

Her choice of career has not caused tension with her family members. "We look at it as a common thing," she said. "We're all in the energy business."

He Was Raised in a Coal Town. He Manages a Wind Farm Overlooking a Mine.



“I just feel we are really making a difference here.”

— Lee Van Horn, wind farm manager | Pennsylvania

Lee Van Horn grew up in northeast Pennsylvania and lives in a village, or “patch,” called Park Place. It’s anthracite country, and his father worked in the mines there for a time. Across the street from Lee’s elementary school stood the St. Nicholas Breaker, a huge coal processing plant. It was painted white, but was coated black with coal dust. Just about everything was back then, Mr. Van Horn said.

It is a region steeped in industry history. In Shenandoah, just down the hill from the wind farm he manages, there a memorial to miners and road names like Coal Street.

He worked for 24 years with Western Electric and then at other companies, switching to wind power in 2006; he is now manager of Locust Ridge 1 and 2, owned by Avangrid Renewables. He recalled watching a wind farm go up near his home and thinking, “Here we are in the coal region and they’re building wind farms, of all places.”

Like many wind farms, Locust Ridge sits on high ground. In this case, it’s two mountains in one. Nature created the rock mass that the turbines stand on, but resting against it is a mountain just as high, formed of tailings from the area’s mines, chunks of hard anthracite and softer, flaky lower-grade stuff. Looking out over the valley below, with the turbine blades whooshing overhead, the cuts in the mountain from the old mines stand out, as do the tall smokestacks of the remaining coal-burning plants.



“I just feel we are really making a difference here,” Mr. Van Horn said. “Driving to work you can see the land scarred, but you can see the wind turbines on the side of the mountain. It’s a sight to behold.”